

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>OPP040029KR</b>	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/KR 2004/002766</b>	International filing date ( <i>day/month/year</i> ) <b>29 October 2004 (29.10.2004)</b>	Priority Date ( <i>day/month/year</i> ) <b>31 October 2003 (31.10.2003)</b>
International Patent Classification (IPC) or national classification and IPC  <b>IPC<sup>7</sup>: H04Q 7/38, H04L 9/32, H04L 29/06</b>		
Applicant <b>ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examination Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I.     ☒ Basis of the opinion
- II.    ☐ Priority
- III.   ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV.    ☐ Lack of unity of invention
- V.     ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI.    ☐ Certain documents cited
- VII.   ☐ Certain defects in the international application
- VIII. ☐ Certain observations on the international application

Date of submission of the demand  <b>30.05.2005</b>	Date of completion of this report  <b>14 November 2005 (14.11.2005)</b>
Name and mailing address of the IPEA/AT Austrian Patent Office Dresdner Straße 87 A-1200 Vienna Facsimile No. 1/53424/200	Authorized officer  <b>MESA PASCASIO J.</b>  Telephone No. 1/53424/327

Form PCT/IPEA/409 (cover sheet) (July 1998)

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/KR 2004/002766

**I. Basis of the report**

## 1. With regard to the elements of the international application:\*

☒ the international application as originally filed☐ the description:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☐ the claims:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, as amended (together with any statement) under Article 19

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☐ the drawings:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☐ the sequence listing part of the description:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☐ The amendments have resulted in the cancellation of:☐ the description, pages \_\_\_\_\_.☐ the claims, Nos: \_\_\_\_\_.☐ the drawings, sheets/fig \_\_\_\_\_.5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as „originally filed“ and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/KR 2004/002766**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement Novelty (N)	Claims ----	YES
	Claims 1-24	NO
Inventive step (IS)	Claims ----	YES
	Claims 1-24	NO
Industrial applicability (IA)	Claims 1-24	YES
	Claims ----	NO

## Citations and explanations (Rule 70.7)

The cited documents of the Search Report are:

D1: WO 1999/048318 A

D2: EP 1 343 345 A2

Document D1 provides a method, mobile station and radio communications system for controlling security-related functions for call handling. Based on the known method and radio communications system for controlling the security-related functions for call handling with subscriber authentication and secrecy of the information, a ciphering request having an identifier (cimode) is received and evaluated by the mobile station (MS) in order to determine whether the communications network wishes to have connections on the air interface (AIF) with ciphered information or with unciphered information. In this case, the mobile station (MS) can be switched under subscriber control to an operating mode in which the connection (for example v1) is terminated if the received identifier (cimode) allows connections with unciphered information. If the radio subscriber does not wish unciphered connections to be intercepted, it is possible to ensure that the information is transmitted, if required, such that it is proof against interception, under subscriber control.

Document D2 provides a mobile authentication system with reduced authentication delay. To minimize delay in re-authenticating with the network through a new base station, an additional form authenticated access mode called "credential authenticated" access is provided. The mobile unit is fully authenticated in the first base station (e.g., the user has logged in and paid for service). Thereafter, the first base unit transmits a "credential" to the mobile node that may be used by other base stations to establish trust with the mobile node prior to full re-authentication. Upon entering the operational zone of the second base station, the mobile node can transmit the credential to the second base station, which may accept the credential and allow access by the mobile node to the network through the second base station before full authentication has completed.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/KR 04/02766

## Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Box V (page 1)

The present application provides a method for requesting authentication from a base station in a wireless portable network system, comprising transmitting a basic capability negotiation message from a subscriber station to a base station, receiving a reply message, establish an authentication mode and requesting authentication on the subscriber mode. The base station may be connected to an authentication, authorization and accounting (AAA) server.

However, any of the cited documents, D1 or D2, provides the same features as the present application, i.e. a method for authenticating a subscriber station in a wireless portable Internet system and configuring a protocol thereof.

Accordingly, all claims 1 to 24 are not new and do not include an inventive step.

Industrial applicability is given.